

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1-43. (Canceled)

44. (New) A method of reducing the population of a microbe on living plant tissue comprising:

spraying onto the plant tissue an aqueous composition comprising:

at least about 5 parts per million (ppm) of one or more aliphatic C₂-C₁₂ peroxycarboxylic acids; and

an aliphatic C₂-C₇ carboxylic acid;

wherein the plant tissue comprises growing plant, fruit of the growing plant, or both the growing plant and the fruit.

45. (New) The method of claim 44, wherein the mole ratio of carboxylic acid to peroxycarboxylic acid is less than about 3:1.

46. (New) The method of claim 44, wherein:

the growing plant comprises fruit tree; and

the fruit comprises a tree fruit.

47. (New) The method of claim 46, wherein the fruit comprises apple or pear.

48. (New) The method of claim 44, wherein the composition comprises about 200 to 1000 ppm of one or more aliphatic C₂-C₁₂ peroxycarboxylic acids;

49. (New) The method of claim 44, wherein the peroxycarboxylic acid comprises peroxyacetic acid, peroxyoctanoic acid, perglycolic acid, permalonic acid, perlactic acid,

peroctanoic acid, perhydroxycaproic acid, perhydroxycaprylic acid, mono-methyl peradipate, mono-methyl persuccinate, mono-methyl perglutarate, mono-ethyl peradipate, mono-ethyl persuccinate, mono-ethyl perglutarate, mono-isobutyl peradipate, mono-isobutyl persuccinate, mono-isobutyl perglutarate, or a mixture thereof.

50. (New) The method of claim 44, wherein the composition comprises C₂-C₇ peroxy-carboxylic acid.

51. (New) The method of claim 50, wherein the composition comprises at least 20 ppm of the C₂-C₇ peroxy-carboxylic acid.

52. (New) The method of claim 44, wherein the peroxy-carboxylic acid comprises peroxyacetic acid

53. (New) The method of claim 44, wherein the aliphatic C₂-C₇ carboxylic acid comprises acetic acid, propionic acid, hexanoic acid, heptanoic acid, or mixture thereof.

54. (New) The method of claim 44, wherein the aliphatic C₂-C₇ carboxylic acid comprises acetic acid, propionic acid, glycolic acid, alpha-hydroxyheptanoic acid, or mixture thereof.

55. (New) The method of claim 44, wherein the composition has pH in the range of about 2 to 8.

56. (New) The method of claim 44, further comprising diluting a concentrate with water to form the aqueous composition.

57. (New) The method of claim 56, wherein the concentrate comprises about 0.1 to 25 wt-% of one or more aliphatic C₂-C₁₂ peroxy-carboxylic acids.

58. (New) The method of claim 57, wherein the concentrate comprises about 4 to 15 wt-% of one or more aliphatic C₂-C₁₂ peroxydicarboxylic acids.

59. (New) The method of claim 56, wherein the concentrate comprises about 1 to 40 wt-% of hydrogen peroxide.

60. (New) The process of claim 56, wherein the concentrate comprises about 1 to 15 wt-% of hydrotrope.

61. (New) The process of claim 56, wherein the concentrate comprises chelating agent.

62. (New) A method of reducing the population of a microbe on living plant tissue comprising:

diluting in an aqueous liquid a concentrate comprising:

about 0.1 to 25 wt-% of one or more aliphatic C₂-C₁₂ peroxydicarboxylic acids; and

about 5 to 40 wt-% of an aliphatic C₂-C₇ dicarboxylic acid;

to form an aqueous composition; and

spraying onto the plant tissue the aqueous composition comprising:

an effective amount of the one or more aliphatic C₂-C₁₂ peroxydicarboxylic acids;

and

the aliphatic C₂-C₇ dicarboxylic acid,

wherein the plant tissue comprises growing plant, fruit of the growing plant, or both the growing plant and the fruit.

63. (New) The method of claim 62, wherein the mole ratio of dicarboxylic acid to peroxydicarboxylic acid is less than about 3:1.